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## UTILITY PATENT APPLICATION TRANSMITTAL

Attorney Docket No. MS1-1043US

First Inventor Venkatesan

Methods and Apparatuses for Providing Short Digital Signatures Using Curve-Based Cryptology

Express Mail Label No. V 35522769

(Only for new nonprovisional applications under 37 CFR 1.53(b))

| Classifications abbrevious arterior of the residual property of the res |   |  |  |  |  |  |  |  |
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| APPLICA  | TION ELEMENTS   | Mail Stop Patent Application  ADDRESS TO: Commissioner for Patents/P.O. Box 1450   |  |  |  |  |  |  |
| See MPEP chapter 600 cond  | cerning utility patent application contents   |  |  |  |  |  |  |  |
|  | [Total Pages 40 ]   | <ol> <li>CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)</li> <li>Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)</li> <li>a. Computer Readable Form (CRF)</li> </ol>                              |  |  |  |  |  |  |
| - Cross Referenc - Statement Region - Reference to seion a computer por Background of Brief Summary - Brief Description - Detailed Description - Claim(s)  | e to Related Applications<br>arding Fed sponsored R & D<br>equence listing, a table,<br>rogram listing appendix<br>the Invention<br>of the Drawings (if filed)<br>ption | b. Specification Sequence Listing on:  i. CD-ROM or CD-R (2 copies); or  ii. paper  c. Statements verifying identity of above copies  ACCOMPANYING APPLICATION PARTS  9. Assignment Papers (cover sheet & document(s))  37 CFR 3.73(b) Statement  Power of |  |  |  |  |  |  |
| - Abstract of the  |   | 10. (when there is an assignee) Attorney   |  |  |  |  |  |  |
| 4. Drawing(s) (35 U  | S.C. 113) [ Total Sheets 3 [ Total Pages 4  | 11. English Translation Document (if applicable)  12. Information Disclosure Statement (IDS)/RTO 1449 Citations  |  |  |  |  |  |  |
|  | uted (original or copy)   | Statement (IDS)/PTO-1449 Citations  13. Preliminary Amendment  |  |  |  |  |  |  |
| Copy from a  | prior application (37 CFR 1.63 (d)) tion/divisional with Box 18 completed)  | 14. Return Receipt Postcard (MPEP 503) (Should be specifically itemized)   |  |  |  |  |  |  |
|  | ION OF INVENTOR(S)  | 15. Certified Copy of Priority Document(s) (if foreign priority is claimed)  |  |  |  |  |  |  |
| named in t   | tement attached deleting inventor(s) the prior application, see 37 CFR and 1.33(b).   | 16. Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35  |  |  |  |  |  |  |
| 6. Application Data  | Sheet. See 37 CFR 1.76  | or its equivalent.  17. Other:   |  |  |  |  |  |  |
| 18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:  Continuation Divisional Continuation-in-part (CIP) of prior application No.:  |   |  |  |  |  |  |  |  |
| Prior application information:   | Examiner  | Group Art Unit:  |  |  |  |  |  |  |
| For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.   |   |  |  |  |  |  |  |  |
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| Name (Print/Type)  | Thomas A. Jolly   | Registration No. (Attorney/Agent) 39,241   |  |  |  |  |  |  |
| Signature  | 12 July   | Date 674/2013  |  |  |  |  |  |  |

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## FEE TRANSMITTAL for FY 2003 Effective 01/01/2003. Patent fees are subject to annual revision. Applicant claims small entity status. See 37 CFR 1.27 Compl te if Known Application Number Filling Date First Named Inventor Venkatesan Examiner Name Art Unit

| Check   Gredit card   Money   Other   Order   Other   Order       | TOTAL AMOUNT OF PAYMENT (\$) 2164.00                             |   |                          | Attorr             | ney Do                      | cket N  | Vo.     | MS1-1043US |                                       |          |
|---|--|---|--------------------------|--------------------|-----------------------------|---------|---------|------------|---------------------------------------|----------|
| Large Entity   Deposit Account   12-0769  | METHOD OF PAYMENT (check all that apply)                         |   |                          |                    | FEE CALCULATION (continued) |         |         |            |                                       |          |
| Poposit Account:  |  |   |                          | 3. ADDITIONAL FEES |                             |         |         |            |                                       |          |
| Poposit   | Donosit /  |   |                          |                    |                             |         |         |            |                                       |          |
| 151   130   2051   65   Surcharge - late filing fee or oath   152   153   15      |  |   |                          |                    |                             |         |         |            | Fee Description                       |          |
| Deposit   Account   Lee & Hayes, PLLC   1052   50   2052   25   Surcharge - late provisional filling fee or cover sheet   Non-Fenjish specification   1053   130   130       | Account  | 12-0769                                   |                          |                    |                             |         |         | Curch      | sorge lote filing for or ooth         | Fee Paid |
| Cover sheet   Name   Credit any overpayments   1053   130   1053   130   1053   130   1053   130   1053   130   1053   130   1053   130   1053   130   1053   130   1053   130   1053   130         |  | J 0 J J                                   | 3110                     |                    |                             |         |         |            | •                                     |          |
| 1053   130   1053   1053   1053   1053   1053   1053   1053   1053   1053   1053       |  | Lee & Hayes, PLLC                         |                          |                    |                             |         |         | cover      | sheet                                 |          |
| Charge fee(s) indicated below, except for the filling fee to the above-identified deposit account.  |  | ioner is authorized to: <u>(ch</u> eck al | that apply)              |                    |                             |         |         |            | • ,                                   |          |
| Charge feets   indicated below, except for the filing fee to the above-identified deposit account.   1805 1,840*      | Charge fee(s) indicated below Credit any overpayments            |   |                          |                    |                             |         |         |            | •                                     |          |
| Test   Total Claims      | Charge any   | additional fee(s) during the pend         | ency of this application | 1804               | 920                         | 1804    | 920"    |            |                                       |          |
| Tell   Total Claims   | · ·  | • •                                       | e filing fee             | 1805               | 1,840*                      | 1805    | 1,840*  |            |                                       |          |
| 1. BASIC FILING FEE   Large Entity   Small Entity   Fee         | to the above-ide   |   |                          | 1251               | 110                         | 2251    | 55      |            |                                       |          |
| 1. BASIC FILING FEE   Large Entity   Small Entity   Fee         | _  |   |                          |                    |                             |         |         |            |                                       |          |
| Fee       |  |   |                          |                    |                             |         |         |            |                                       |          |
| 1001 750  | Fee Fee  | Fee Fee Pescription                       | Fee Paid                 |                    |                             |         |         |            | • •                                   |          |
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| 1402   320   2402   160   Filing a brief in support of an appeal   1402   320   2402   160   Filing a brief in support of an appeal   1403   280   2403   140   Request for oral hearing   1405   150   1405   150   1405      |  |   | 750                      |                    |                             |         |         |            |                                       |          |
| 1004 750   2004 375   Reissue filing fee   1403 280   2403 140   Request for oral hearing   1451 1,510   1451 1,510   Petition to institute a public use proceeding   1451 1,510   1451 1,510   Petition to institute a public use proceeding   1451 1,510   2452 55   Petition to revive - unavoidable   1453 1,300   2453 650   Petition to revive - unintentional   1451 1,510   1451 1,510   Petition to revive - unavoidable   1453 1,300   2453 650   Petition to revive - unintentional   1451 1,510   1451 1,510   Petition to revive - unintention in entity   1451 1,510   1451 1,510   Petition to revive - unintention in entity   1451 1,510   1451 1,510   Petition to revive - unintention in entity   1451 1,510   1451 1,510   1451 1,510   Petition to revive - unintentional   1451 1,510   1451 1,510   1451 1,510   Petition to revive - unintention in entity   1451 1,510   1451 1,510   1451 1,510   1451 1,510   1451 1,510   1451 1,510   1451 1,510   1451 1,510   1451 1,510   1451 1,510   1451 1,510      |  | • •                                       |                          |                    |                             |         |         |            | ''                                    |          |
| 1005   160   2005   80   Provisional filing fee   SUBTOTAL (1)   (\$)   750.00   1451   1,510   Petition to institute a public use proceeding   1452   110   2452   55   Petition to revive - unavoidable   1453   1,300   2453   650   Petition to revive - unintentional   1451   1,510   1,300   2501   650   Utility issue fee (or reissue)   1502   470   2502   235   Design issue fee   1503   630   2503   315   Plant issue fee   1503   630   2503   315   Plant issue fee   1504   130   Petitions to the Commissioner   1460   130   Petitions to the Commissioner       | 4  | •   | . ——                     |                    |                             |         |         | _          |                                       |          |
| SUBTOTAL (1)   (\$)   750.00   1452   110   2452   55 Petition to revive - unavoidable   1453   1,300   2453   650   Petition to revive - unintentional   1501   1,300   2501   650   Utility issue fee (or reissue)   1502   235   Design issue fee   1503   315   Plant issue fee   1503   315   Plant issue fee   1503   303   2503   315   Plant issue fee   1460   130   1460   130   Petitions to the Commissioner   1807   50   1807   50   Processing fee under 37 CFR 1.17(q)   1806   180   1806   180   1806   180   Submission of Information Disclosure Stmt   1808   1809      | i  | •   |                          |                    |                             |         |         | •          | •                                     |          |
| 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE   Extra Claims  | 1000 100   |   |                          |                    |                             |         |         |            |                                       |          |
| 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE Fee from below Fee Paid below Fee Paid load pendent Total Claims Independent Restra Claims Independent Restra Claims Restra Cl    | SUBTOTAL (1) (\$) 750.00   |   |                          | 1453               | 1.300                       | 2453    |         |            |                                       |          |
| Total Claims   Tota      | 2. EXTRA C   |   |                          |                    |                             |         |         |            |                                       |          |
| Independent Claims Multiple Dependent  Large Entity   Small Entity Fee   Fee   Fee   Fee   Fee   Fee   Code (\$)   1202   18   2202   9   Claims in excess of 20 1201   84   2201   42   Independent claims in excess of 3 1203   280   2203   140   Multiple dependent claims over original patent   1204   84   2204   42 *** Reissue independent claims over original patent   1205   18   2205   9 *** Reissue claims in excess of 20 and over original patent   1503   630   2503   315 Plant issue fee   1460   130   Petitions to the Commissioner   1807   50   Processing fee under 37 CFR 1.17(q)   1808   1808   1808   Submission of Information Disclosure Stmt   8021   40   Recording each patent assignment per property (times number of properties)   1809   750   2809   375   Filing a submission after final rejection (37 CFR 1.129(a))   1809   750   2810   375   For each additional invention to be examined (37 CFR 1.129(b))   1801   750   2801   375   Request for Continued Examination (RCE)   1802   900   1802   900   Request for expedited examination of a design application    Other fee (specify)   | Total Claims 73 -20** = 53 X 18 = 954                            |   |                          | 1502               | 470                         | 2502    |         | -          | · · · · · ·                           |          |
| Claims Multiple Dependent  Large Entity Small Entity Fee Fee Fee Code (\$) 1202 18 2202 9 Claims in excess of 20 1203 280 2203 140 Multiple dependent claims over original patent 1204 84 2204 42 **Reissue claims in excess of 20 and over original patent  SUBTOTAL (2)  (\$\$) 130 Petitions to the Commissioner 1806 130 Petitions to the Commissioner 1807 50 Processing fee under 37 CFR 1.17(q) 1806 180 Submission of Information Disclosure Stmt 8021 40 Recording each patent assignment per property (times number of properties) 1809 750 2809 375 Filing a submission after final rejection (37 CFR 1.129(a)) 1810 750 2810 375 For each additional invention to be examined (37 CFR 1.129(b)) 1801 750 2801 375 Request for Continued Examination (RCE) 1802 900 1802 900 Request for expedited examination of a design application  Other fee (specify)  Cother fee (specify)  |  |   |                          | 1503               | 630                         | 2503    | 315     | Plant      | t issue fee                           |          |
| Large Entity   Small Entity   Fee   Fee   Fee   Fee   Fee   Code (\$)   1202   18   2202   9   Claims in excess of 20   1201   84   2201   42   Independent claims in excess of 3   1203   280   2203   140   Multiple dependent claims in excess of 20   1204   84   2204   42   ** Reissue independent claims over original patent   1205   18   2205   9   ** Reissue claims in excess of 20 and over original patent   1374.00   SUBTOTAL (2)   (\$)   1374.00   1807   50   Processing fee under 37 CFR 1.17(q)   1806   180   Submission of Information Disclosure Stmt   40   Recording each patent assignment per property (times number of properties)   40   1809   750   2809   375   Filing a submission after final rejection (37 CFR 1.129(a))   1807  | Claims   |   | 84 = 420                 | 1460               | 130                         | 1460    | 130     | Petiti     | ions to the Commissioner              |          |
| Fee Fee Code (\$)  1202 18  1202 9 Claims in excess of 20  1203 280  1204 84  1204 84  1204 84  1205 18  1205 9 ** Reissue claims in excess of 20  1205 18  1205 18  1206 Fee Fee Code (\$)  1206 Code (\$)  1207 Recording each patent assignment per property (times number of properties)  1208 2809 375 Filing a submission after final rejection (37 CFR 1.129(a))  1208 2809 375 For each additional invention to be examined (37 CFR 1.129(b))  1209 1801 750 2801 375 Request for Continued Examination (RCE)  1200 18  1201 1802 900 1802 900 Request for expedited examination of a design application  1202 18  1203 280  1204 19  1205 18  1206 1802 1802 1802 1802 1802 1802 1802 1802   |  | L   | =                        | 1807               | 50                          | 1807    | 50      | Proc       | essing fee under 37 CFR 1.17(q)       |          |
| Code (\$)   Code (\$)   Code (\$)   Recording each patent assignment per property (times number of properties)   2202 9 Claims in excess of 20   1809 750   2809 375 Filing a submission after final rejection (37 CFR 1.129(a))   1809 750   2810 375 For each additional invention to be examined (37 CFR 1.129(b))   1801 750 2801 375 Request for Continued Examination (RCE)   1801 750 2801 375 Request for expedited examination of a design application   1802 900 Request for expedited examination of a design application   1801 750 2801 375 Request for expedited examination of a design application   1802 900 Request for expedited examination   1802 900 Req |  |   | lon                      | 1806               | 180                         | 1806    |         |            |                                       |          |
| 1202 18   |  |   | <del>non</del>           | 8021               | 40                          | 8021    | 40      | Reco       | ording each patent assignment per     | 40       |
| 1201 84   2201 42 Independent claims in excess of 3   (37 ČFR 1.129(a))   1203 280   2203 140   Multiple dependent claim, if not paid   1810 750   2810 375 For each additional invention to be examined (37 CFR 1.129(b))   1204 84   2204 42 ** Reissue independent claims over original patent   1801 750   2801 375 Request for Continued Examination (RCE)   1205 18   2205 9 ** Reissue claims in excess of 20 and over original patent   1802 900   1802 900 Request for expedited examination of a design application   SUBTOTAL (2)   (\$\$) 1374.00   Other fee (specify)   |  |   |                          | 1809               | 750                         | 2809    | 375     |            | · · · · · · · · · · · · · · · · · · · |          |
| 1204 84 2204 42 ** Reissue independent claims over original patent 1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent 1205 18 2205 9 (\$) 1374.00 Other fee (specify)  |  |   |                          |                    |                             |         |         | -          | • • •                                 |          |
| 1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent  1801 750 2801 375 Request for Continued Examination (RCE)  1802 900 Request for expedited examination of a design application  Other fee (specify)   |  | · ·                                       |                          | 1810               | 750                         | 2810    | 375     |            |                                       |          |
| 1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent   | 1204 84  |   |                          | 1801               | 750                         | 2801    | 375     |            | ' ''                                  |          |
| SUBTOTAL (2) ((\$) 1374,00()  | 1205 18  |   |                          | 1802               | 900                         | 1802    |         | Req        | quest for expedited examination       |          |
|   | SUBTOTAL (2) (\$) 1374.00  |   |                          |                    |                             |         |         |            |                                       |          |
| Tor number previously paid, if greater; For Reissues, see above 40.00   | **or number previously paid, if greater; For Reissues, see above |   |                          | *Redu              | iced by                     | Basic F | iling F | ee Pai     | id SUBTOTAL (3) (\$)                  | 40.00    |

SUBMITTED BY

Name (Print/Type)

Thomas A. Jolly

Registration No. (Attornev/Agent)

Signature

(Complete (if applicable)

Telephone (509) 324-9256

Date 67667603

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